

# APPARATUS AND METHOD FOR DEPOSITING LARGE AREA COATINGS ON PLANAR SURFACES

## Abstract of Disclosure

A method and apparatus for depositing a uniform coating on a large area, planar surface using an array of multiple plasma sources and a common reactant gas injector. The apparatus includes at least one array of a plurality of plasma sources, wherein each of the plurality of plasma sources includes a cathode, an anode, and an inlet for a non-reactive plasma source gas disposed in a plasma chamber, and a common reactant gas injector disposed in a deposition chamber that contains the substrate. The common reactant gas injector provides a uniform flow of at least one reactant gas to each of the multiple plasmas generated the multiple plasma sources through a single delivery system. The at least one reactant gas reacts with the plurality of plasmas to form a uniform coating on a substrate.

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